Claims:

1. Use of compounds of the following formula (I):

$$P_1$$
 P_2
 P_3
 P_4
 P_4
 P_5
 P_4
 P_5
 P_5
 P_6
 P_8

wherein X represents OH, (C_{1-5}) alkoxy, NH₂, NH- C_{1-5} -alkyl, N(C_{1-5} alkyl)₂;

 R_1 is a residue derived from one of the amino acids Phe, Tyr, Trp, Pro, which each may be optionally substituted with one or more (C_{1-5}) alkoxy groups, (C_{1-5}) alkyl groups or halogen atoms, as well as Ala, Val, Leu or Ile;

 R_2 is a residue derived from one of the amino acids Gly, Ala, Ile, Val, Ser, Thr, Leu and Pro;

 Y_1 and Y_2 independently from each other represent H or (C_{1-5}) alkyl;

 R_3 and R_4 independently from each other represent H, OH, (C_{1-5}) alkyl or (C_{1-5}) alkoxy, provided that R_3 and R_4 are not both OH or (C_{1-5}) alkoxy; and

 R_5 represents H, OH, (C_{1-5}) alkyl or (C_{1-5}) alkoxy;

or a pharmaceutically acceptable salt thereof;

for the preparation of a medicament useful in the treatment of neurodegenerative diseases.

- 2. Use according to claim 1, wherein X represents (C_{1-5}) alkoxy, NH₂, NH-C₁₋₅-alkyl, or N(C₁₋₅ alkyl)₂.
- 3. Use according to claim 1 or 2, wherein R_3 and R_4 independently from each other represent H, (C_{1-5}) alkyl or (C_{1-5}) alkoxy, provided that R_3 and R_4 are not (C_{1-5}) alkoxy.
- 4. Use according to any of the previous claims, wherein R_5 represents H, (C_{1-5}) alkyl or (C_{1-5}) alkoxy.
- 5. Use according to any of the previous claims, wherein the neurodegenerative disease is Alzheimer's disease.
- 6. Use according to any of the previous claims, wherein the neurodegenerative disease is mild cognitive impairment.
- 7. Use according to any of the previous claims, wherein R_1 is a residue which is derived from one of the amino acids Phe, Tyr, Trp, each of which may optionally be substituted with a (C_{1-5}) alkoxy group, a (C_{1-5}) alkyl group or a halogen atom or which is derived from Ile.

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- 8. Use according to claim 7, wherein R_1 is a residue which is derived from Phe, which may optionally be substituted with a (C_{1-5}) alkoxy group, a (C_{1-5}) alkyl group or a halogen atom.
- 9. Use according to any of the previous claims, wherein \mathbf{R}_2 is a residue which is derived from the amino acid Gly or Ile.
- 10. Use according to any of the previous claims, wherein the compound of formula (I) is glycyl-L-phenylalanyl-L-prolineamide, N,N-diethyl-isoleucyl-phenylalanyl-L-proline

ethylamide, N,N-diethyl-isoleucyl-isoleucyl-prolineamide or a pharmaceutically acceptable salt thereof.

11. Pharmaceutical composition comprising compounds of the following formula (I):

wherein X represents OH, (C_{1-5}) alkoxy, NH₂, NH- C_{1-5} -alkyl, N(C_{1-5} alkyl)₂;

 R_1 is a residue derived from one of the amino acids Phe, which may be optionally substituted with one or more (C_{1-5}) alkoxy groups, (C_{1-5}) alkyl groups or halogen atoms;

R₂ is a residue derived from one of the amino acids Gly, Ala, Ile, Val, Ser, Thr, Leu, and Pro;

 Y_1 and Y_2 independently from each other represent H or (C_{1-5}) alkyl;

 $\rm R_3$ and $\rm R_4$ independently from each other represent H, OH, $\rm (C_{1-5})$ alkyl or $\rm (C_{1-5})$ alkoxy, provided that $\rm R_3$ and $\rm R_4$ are not both OH or (C₁₋₅) alkoxy; and

 R_5 represents H, OH, (C_{1-5}) alkyl or (C_{1-5}) alkoxy;

or a pharmaceutically acceptable salt thereof;

and pharmaceutically acceptable excipients.

- 12. Pharmaceutical composition according to claim 11, wherein X represents (C_{1-5}) alkoxy, NH₂, NH-C₁₋₅ alkyl or N(C₁₋₅ alkyl)₂.
- 13. Pharmaceutical composition according to claims 11 or 12, wherein R_2 is a residue which is derived from the amino acid Gly.
- 14. Pharmaceutical composition according to claims 11 to 13, wherein the compound of formula (I) is glycyl-L-phenylalanyl-L-prolineamide, N,N-diethyl-isoleucyl-phenylalanyl-L-proline ethylamide, N,N-diethyl-isoleucyl-isoleucyl-prolineamide or a pharmaceutically acceptable salt thereof.
- 15. Use of a compound of formula (I) as defined in claim 11 as a drug.